



1977
CENSUS OF
CONSTRUCTION
INDUSTRIES

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Industry Series

Preliminary Report

Excavating and Foundation Work Special Trade Contractors

SIC 1794

During 1977, the establishments with payroll in this industry had business receipts of \$4.3 billion. Of this amount, \$4.2 billion were receipts for construction work, an increase of 42 percent compared with 1972. Their payments for construction work subcontracted to others amounted to \$280.3 million leaving net construction receipts of about \$3.9 billion. Total average employment in the industry showed a decrease of one percent from 1972 to 103.4 thousand employees. Payroll for 1977 amounted to \$1.2 billion. Value added at \$3.0 billion in 1977 was 36 percent more than in 1972.

The Excavating and Foundation Work Special Trade Contractors industry includes establishments primarily engaged in excavation and foundation work, including digging and loading, in connection with building construction, or heavy or engineering construction. Contractors in this industry may also perform incidental concrete work, but contractors primarily engaged in concrete work are classified in industry 1771. Excavation and earthmoving work done by general contractors engaged in highway and street construction or heavy or engineering construction are classified in the appropriate industries of major group 16. Grave excavation contractors are classified in industry 1799. Pile-driving general contractors are classified in industry 1629. For a more detailed description, see the 1972 SIC Manual.¹

For this census, a "construction establishment" was defined as a relatively permanent office or other place of business at which or from which the usual business activities related to construction were conducted. A separate census report was required from each establishment but not from each construction site. Instead, the data for work at each site were included in the report from the appropriate office or branch office. Foreign construction activities were not included in this census.

The 1977 Census of Construction Industries is the sixth census of construction establishments in the United States. As in previous years, it was conducted jointly with the censuses of mineral industries, manufactures, retail trade, wholesale trade,

and service industries under authority of title 13 of the United States Code. Although the first construction census was conducted covering 1929, only the data from the censuses of 1967 and 1972 are comparable with the 1977 data.

The 1977 estimates for establishments with payroll in all of the construction industries are based on reports from a probability sample of approximately 181,000 establishments selected from about 536,000 construction establishments with payroll. The sample included all construction establishments with a payroll equivalent of 15 or more full-time employees and a sample of those with fewer employees. There were two exceptions: In SIC 1521, sampling was employed in establishments with less than 20 employees because of the large number of establishments in that industry; in SIC 1795, all known establishments were included because of the very small number of establishments in that industry. The data obtained from the sample were inflated to represent all construction establishments with payroll. Complete descriptions of the sampling and estimating procedures will be included in the final reports.

Since the data in this report are based on a sample, they are subject to sampling variability and may be expected to differ from results which would have been obtained if a complete census had been taken using the same schedules and procedures. The standard error shown in the tables is a measure of sampling variability, i.e., the variation that might occur by chance because only a sample of the population was surveyed. As calculated for this report, the standard error partially incorporates the effect of random errors of response, but it does not take into account the effect of any consistent biases due to those types of errors. The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the standard error. The chances are about 95 out

¹ Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 4101-0066. Price \$6.75. 1977 Supplement. Stock No. 003-005-00176-0. Price 90 cents.



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Table 1. Detailed Statistics for Establishments With Payroll: 1977, 1972, and 1967

(Thousands of dollars. Detailed figures may not add to totals because of rounding. For meaning of abbreviations and symbols, see text)

Item	Excavating and foundation work special trade contractors (1794)			Standard error of estimate (percent)		
	1977	1972	1967	1977	1972	1967
Number of establishments.....	16,213	15,981	12,634	2	2	3
Proprietors and working partners.....	9,786	10,692	10,782	3	3	4
All employees:						
March.....	86,065	87,421	63,947	1	2	(Z)
May.....	110,147	105,451	77,673	1	2	(Z)
August.....	113,584	114,631	85,566	1	2	(Z)
November.....	103,377	103,997	78,655	1	2	(Z)
Average.....	103,414	104,598	77,920	1	2	2
Construction workers:						
March.....	74,367	76,039	56,055	1	2	2
May.....	97,276	93,598	69,459	1	2	2
August.....	100,824	102,262	77,308	1	2	2
November.....	91,023	91,858	70,713	1	2	2
Average.....	90,981	92,592	69,529	1	2	2
Other employees:						
March.....	11,698	11,382	7,983	2	2	3
May.....	12,871	11,853	8,100	2	2	3
August.....	12,760	12,369	8,241	2	2	2
November.....	12,354	12,139	8,064	2	2	2
Average.....	12,454	12,232	8,258	2	2	2
Payroll, all employees.....	1,203,432	923,468	502,119	1	2	1
Payroll, construction workers.....	1,017,746	786,583	436,173	1	2	1
Payroll, other employees.....	185,687	136,885	66,022	1	2	2
First quarter payroll, all employees.....	219,819	(NA)	(NA)	1	(NA)	(NA)
Employer costs for fringe benefits.....	246,919	(NA)	(NA)	3	(NA)	(NA)
Legally required expenditures.....	144,457	(NA)	(NA)	2	(NA)	(NA)
Voluntary expenditures.....	102,462	(NA)	(NA)	4	(NA)	(NA)
All business receipts.....	4,331,981	3,054,467	1,699,150	1	2	2
Total construction receipts.....	4,191,009	2,956,531	1,652,031	1	2	2
Receipts for work subcontracted in from others.....	2,190,393	1,401,078	724,685	1	2	4
Other business and land receipts.....	140,972	97,936	47,207	3	4	4
Net construction receipts.....	3,910,726	2,722,914	1,522,665	1	2	2
Value added.....	2,969,728	2,188,249	1,218,909	1	2	2
Selected payments.....	1,362,253	866,218	480,386	1	2	3
Materials, components, and supplies.....	877,156	1,632,601	1,350,885	1	2	3
Construction work subcontracted to others.....	280,283	233,617	129,491	2	2	2
Selected power, fuels, and lubricants.....	204,814	(NA)	(NA)	1	(NA)	(NA)
Electricity.....	7,959	(NA)	(NA)	2	(NA)	(NA)
Natural gas.....	3,036	(NA)	(NA)	3	(NA)	(NA)
Gasoline and diesel fuel.....	170,484	(NA)	(NA)	1	(NA)	(NA)
Lubricating oils and greases.....	19,625	(NA)	(NA)	4	(NA)	(NA)
Other.....	3,711	(NA)	(NA)	4	(NA)	(NA)
Rental payments for machinery, equipment, and structures.....	220,898	(NA)	(NA)	2	(NA)	(NA)
For machinery and equipment.....	209,733	173,188	93,428	2	3	2
For structures.....	11,166	(NA)	(NA)	2	(NA)	(NA)
Selected purchased services.....	290,486	(NA)	(NA)	2	(NA)	(NA)
Communication.....	18,694	(NA)	(NA)	2	(NA)	(NA)
Repairs to structures and related facilities.....	4,945	(NA)	(NA)	4	(NA)	(NA)
Repairs to machinery and equipment.....	266,847	(NA)	(NA)	2	(NA)	(NA)
Capital expenditures.....	475,753	359,344	175,377	2	3	3
New.....	318,250	268,211	127,062	2	4	3
Structures and related facilities.....	13,518	9,427	5,660	7	9	13
Machinery and equipment, including automobiles and trucks.....	304,732	258,784	121,402	2	4	3
Automobiles and trucks intended primarily for highway use.....	68,074	(NA)	(NA)	3	(NA)	(NA)
Used.....	157,503	91,133	48,315	3	4	5
Structures and related facilities.....	4,871	5,804	5,374	13	11	15
Machinery and equipment, including automobiles and trucks.....	152,632	85,329	42,941	3	4	5
Fixed assets and depreciation:						
Gross book value of depreciable assets at end of year.....	2,634,090	1,814,402	(NA)	1	2	(NA)
Accumulated depreciation at end of year.....	1,359,640	877,790	(NA)	1	2	(NA)
Net value of depreciable assets at end of year.....	1,274,451	936,612	(NA)	2	3	(NA)
Depreciation charges during year.....	295,998	233,989	(NA)	2	3	(NA)
Structures, additions, and related facilities:						
Gross book value of depreciable assets at end of year.....	167,438	117,679	(NA)	4	6	(NA)
Accumulated depreciation at end of year.....	54,762	33,460	(NA)	4	8	(NA)
Net value of depreciable assets at end of year.....	112,676	84,219	(NA)	4	6	(NA)
Depreciation charges during year.....	9,742	15,933	(NA)	7	12	(NA)
Machinery and equipment:						
Gross book value of depreciable assets at end of year.....	2,466,653	1,696,723	(NA)	1	2	(NA)
Accumulated depreciation at end of year.....	1,304,878	844,330	(NA)	1	2	(NA)
Net value of depreciable assets at end of year.....	1,161,775	852,393	(NA)	2	3	(NA)
Depreciation charges during year.....	286,256	218,056	(NA)	2	2	(NA)

¹Includes data for power, fuels, and lubricants, now shown separately.

Table 2. **Construction Receipts for Establishments With Payroll by Type of Construction: 1977 and 1972**

(Thousands of dollars. Detailed figures may not add to totals because of rounding. For meaning of abbreviations and symbols, see text)

Item	Excavating and foundation work special trade contractors (1794)		Standard error of estimate (percent)	
	1977	1972	1977	1972
Construction receipts.....	4,191,009	2,956,531	1	2
Building construction.....	1,523,854	1,286,394	1	2
Single-family houses.....	712,406	427,799	2	4
Apartment buildings.....	118,268	201,748	4	4
Other residential buildings.....	25,925	45,318	4	4
Industrial buildings and warehouses.....	321,919	266,883	3	3
Office and bank buildings.....	98,046	102,624	2	2
Stores, restaurants, public garages, and automobile service stations.....	67,225	80,670	4	5
Educational buildings.....	56,490	77,993	6	2
Hospitals and institutional buildings.....	72,390	49,626	2	5
Other nonresidential buildings.....	51,184	33,733	5	5
Nonbuilding construction.....	1,481,940	1,065,719	1	2
Highways, streets, and related facilities.....	422,565	375,155	2	4
Dams and reservoirs.....	55,226	29,625	5	8
Conservation and development construction.....	219,544	144,860	4	6
Power and communication transmission lines, towers, and related facilities.....	67,718	32,714	4	7
Sewers, water mains, and related facilities.....	339,908	266,462	3	5
Power plants.....	64,483	48,379	2	2
Sewage treatment and water treatment plants.....	73,450	38,264	2	7
Other nonbuilding construction.....	239,046	130,260	3	6
Construction work not specified by kind.....	1,185,270	604,418	2	4

Note: See text for explanation of duplication.

of 100 that the difference is less than twice the standard error.

This report does not include figures for separate administrative offices, warehouses, garages, or other auxiliary units which service construction establishments of the same company. Data for separate central administrative offices and auxiliaries are collected in the enterprise statistics survey, a part of the economic censuses.

This report is one in a series presenting preliminary data collected in the 1977 Census of Construction Industries. The universe for this census included all establishments classified in the construction industries (SIC's 15, 16, 17, and 6552). This report will be superseded by a more detailed final report. In addition to data for establishments with payroll presented here, the final Industry Summary report and the reports in the Geographic Area Series will present limited data for construction establishments with no payroll during 1977.

The totals of construction receipts reported by all construction establishments in each of the several industry, State, or other groupings in this census contain varying amounts of duplication, since the construction work (and the receipts) of one firm may be subcontracted out to other construction firms and, therefore, will be included in the subcontractor's receipts. To avoid this duplication, a "net construction receipts" figure has been derived by subtracting the payments made for construction work subcontracted to others from the construction receipts.

Usually, "value added" is the best measure for comparing the relative economic importance of industries or areas. It eliminates the duplication in receipts because of subcontracting. It also eliminates from the output measure the cost of materials, which differs in relative importance among areas and industries. For this census, "value added" is equal to all business receipts less payments for construction work subcontracted to others and payments for materials, components, supplies, and fuels. However, for industries for which land receipts are significant, "value added" is equal to all business receipts less land receipts, payments for construction work subcontracted to others, and payments for materials, components, supplies, and fuels.

The symbols in the tables mean:

- Represents zero.
- D Withheld to avoid disclosing figures for individual companies; figures are included in higher level totals.
- S Withheld because estimates did not meet publication standards on the basis of either the associated standard error or a consistency review.
- Z Standard error of estimate is greater than zero but less than 1 percent.
- a Sampling error is greater than 40 percent.
- NA Not available; data were not collected.

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